

1

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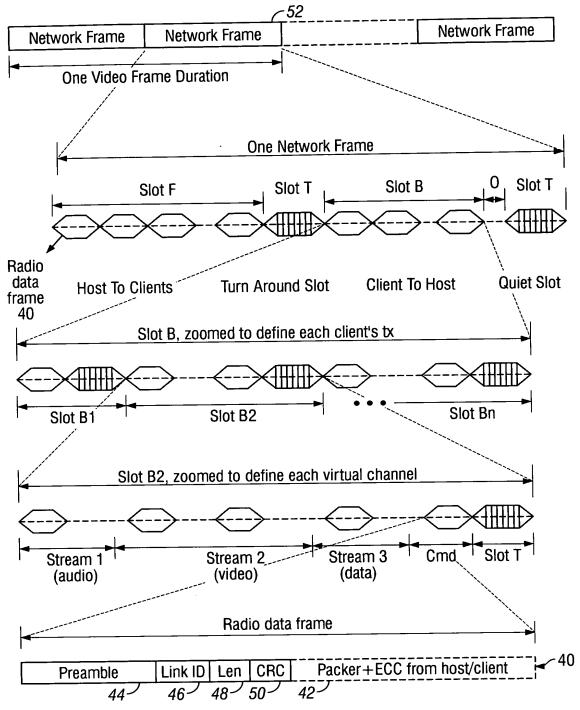


FIG. 2



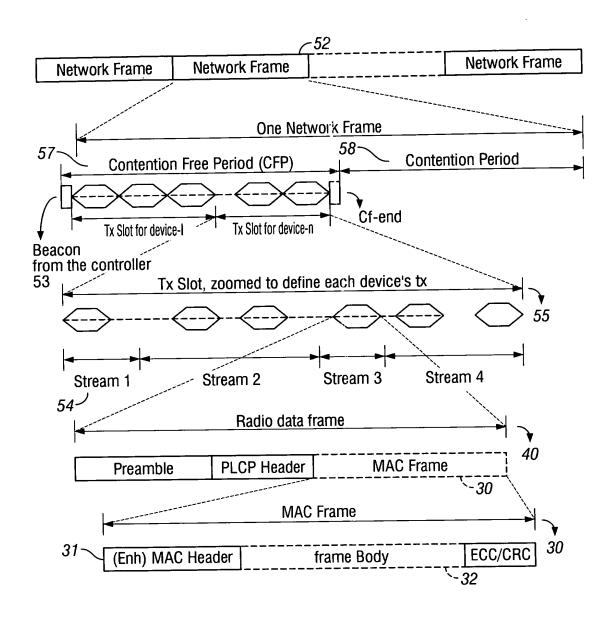
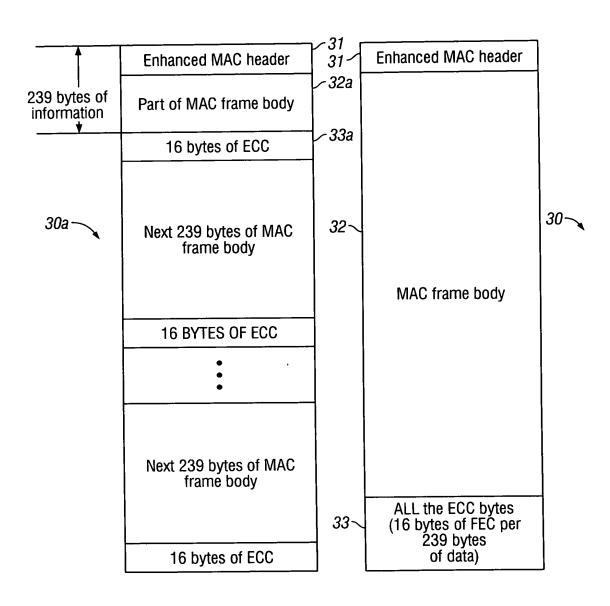


FIG. 3





(a) Interlaced MAC frame format

(a) Non-interlaced MAC frame format

FIG. 4





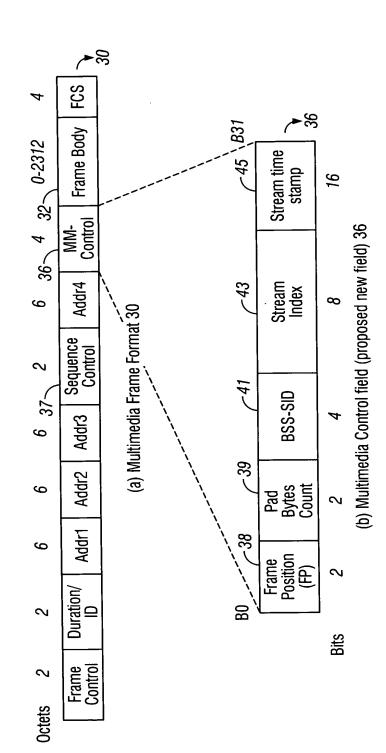
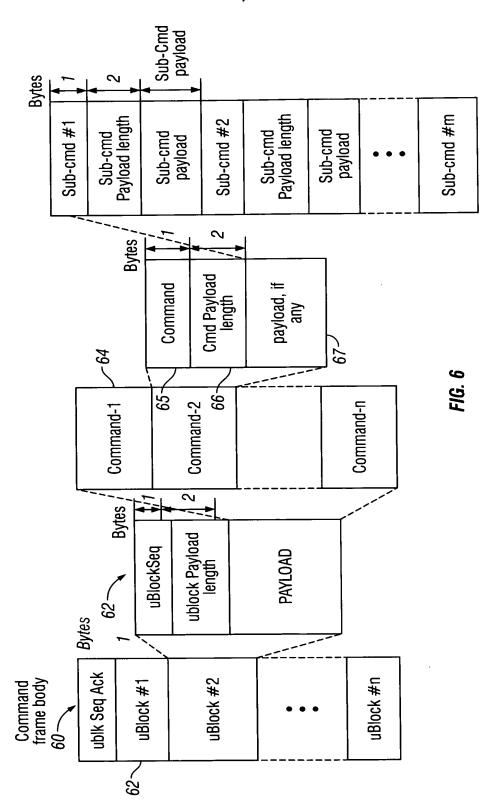


FIG. 5







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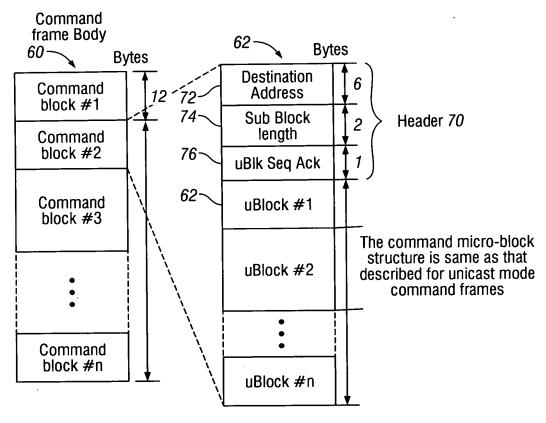
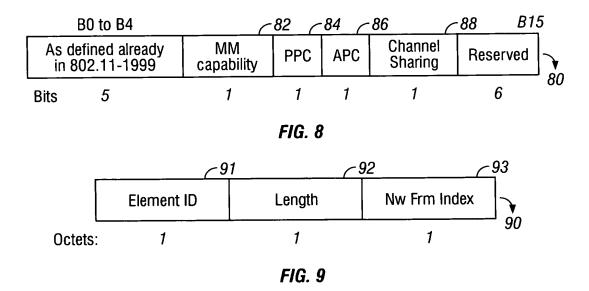
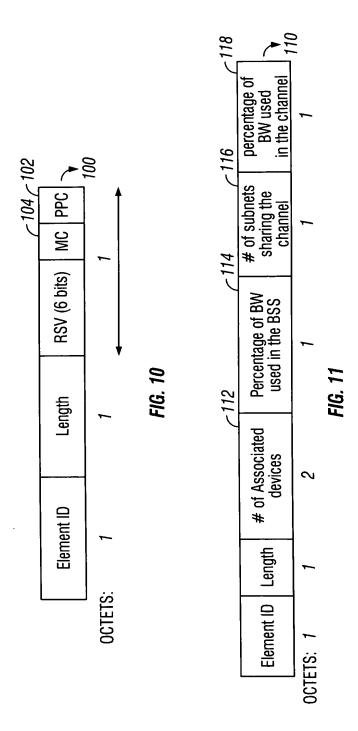


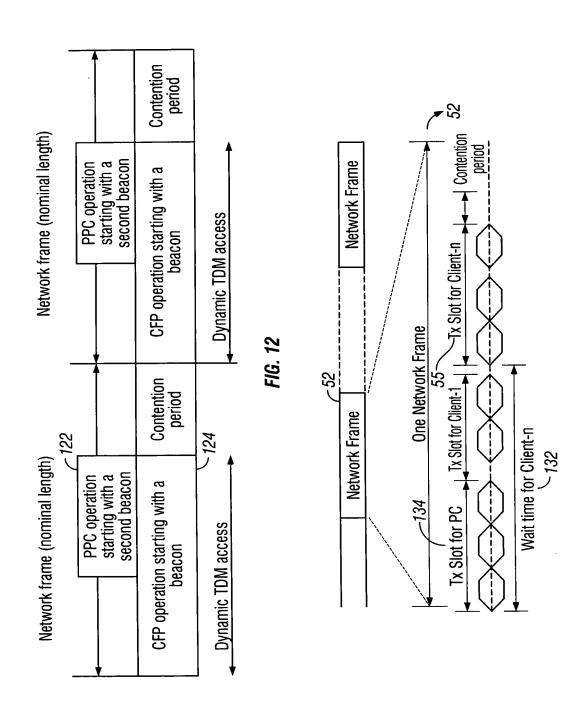
FIG. 7













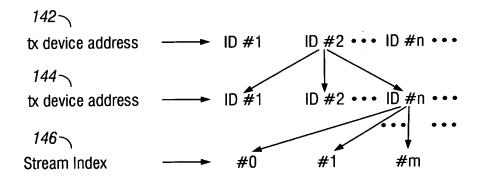


FIG. 14

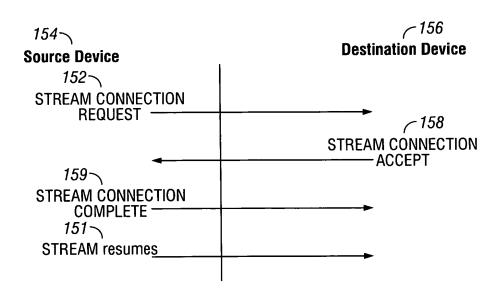


FIG. 15



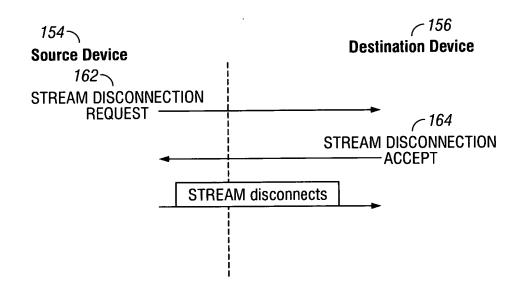


FIG. 16

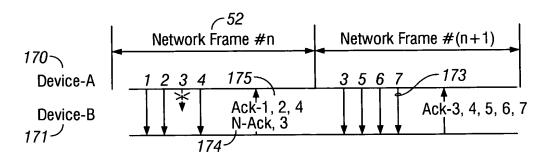
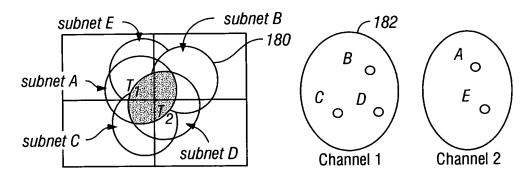


FIG. 17





- (a) Physical location: Subnets A, B, C and D ARE In one plane and Subnet E is in another plane
- (b) Logical location: Subnets B, C and D share channel-1 and Subnet A and E share channel-2
- · Subnet B comes up first and assumes all zero BSS-SID in channel 1 with 10% bandwidth utilization
- · Subnet A comes up next and assumes all zero BSS-SID in channel 2 with 80% bandwidth utilization
- · Subnet D comes up:
  - Detects both channels being busy
- Detects channel-1 with low bandwidth utilization and
- Requests 30% bandwidth in channel-1
- Subnet B and D share Channel 1 with 10% and 30% bandwidth usage respectively
- · Subnet C comes up:
  - Detects both channels being busy
  - Detects channel-1 with low bandwidth utilization and
  - Requests 40% bandwidth in channel-1
  - Subnet B, C and D share Channel 1 with 10%, 40% and 30% bandwidth usage respectively
- · Subnet E (not shown in picture) comes up:

  - Detects both channels being busy
     Detects channel-1 and channel-2 with approximately same bandwidth utilization
  - Detects channel-2 with lower number of subnets
  - Requests 40% bandwidth in channel-2.



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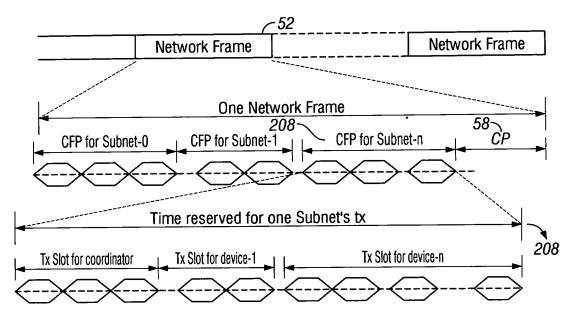


FIG. 19

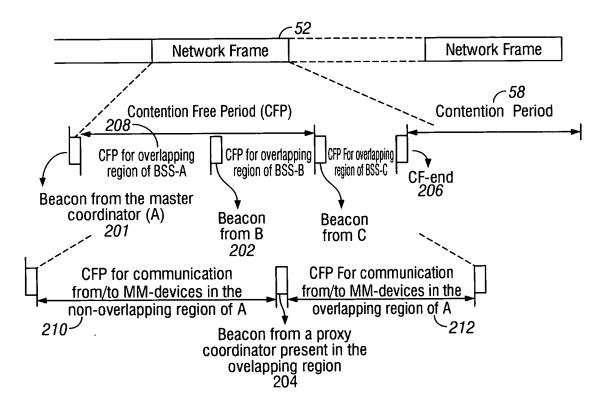
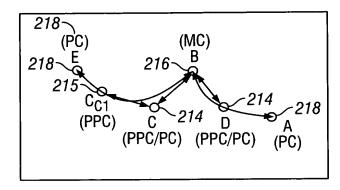


FIG. 20





- · Subnet B comes up first and assumes all zero BSS-SID
- · Subnet D comes up next and requests bandwidth sharing with B
- · Subnet C comes up next and requests bandwidth sharing with B and D
- · Subnet A comes up:
  - Subnet B can not detect A and/or A can not detect B
  - Subnet D detects both and reports to B that A is operating in the same channel
  - B assigns D to be proxy coordinator and sends request to D for bandwidth sharing. If A can detect any packets from B or D it can also send the same request.
  - D acts as tunnel between B and A.
  - A gets a invitation from B to join the already group existing group of B, C and D.
  - A gets assigned an SS-ID and its transmission always follows that of D
- Subnet E comes up:
- Except C<sub>C1</sub> no other device can detect E and or otherwise
- E tries to use another channel and fails
- There is only one option to E and that is to join the same group formed above, else it will be interfering with  $C_{\rm C1}$
- C<sub>C1</sub> detects request from E and reports to C that E is operating in the same channel
- C tunnels the information to B.
- B assigns C<sub>C.1</sub>, to be proxy coordinator and sends request to C for permission.
- C authenticates the request and provides the permission.
- C and C<sub>C1</sub> together form a tunnel between B and E.
- E gets assigned and SS-ID and its transmission always follows that of  $\mathcal{C}_{\mathcal{C}1}$ .



**NULL Command** 

1 Octet

FIG. 22

Stream Management 1 Octet

Cmd Payload len 2 Octets

Subcommand structure n Octets

FIG. 23

Restart ALL Stream
Connections (Ack)

Subcmd Payload len

240

Time out Period
(in TU)

3 Octets

FIG. 24



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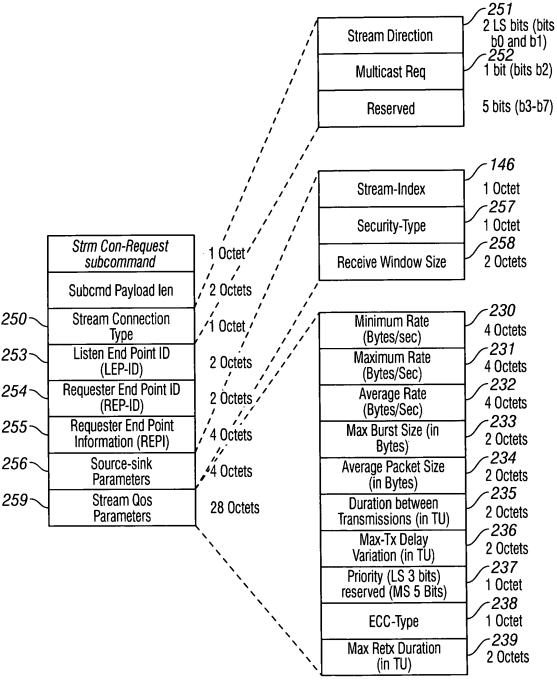


FIG. 25



1 Octet
2 Octets
1 Octet
2 Octets
2 Octets
4 Octets
4 Octets
28 Octets
4 Octets
28 Octets

FIG. 26



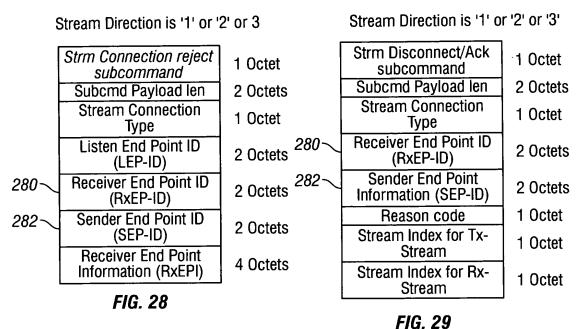
### Stream Direction is "1" or "2"

	Strm Connection Accept subcommand	1 Octet
	Subcmd Payload len	2 Octets
	Stream Connection Type	1 Octet
	Listen End Point ID (LEP-ID)	2 Octets
	Requester End Point ID (REP-ID)	2 Octets
270~	Acceptor End Point ID (AEP-ID)	2 Octets
272~	Acceptor End Point Information (AEPI)	4 Octets
	Source-Sink Params for Stream	4 Octets
	Stream Qos Params for Stream	28 Octets

## Stream Direction is "3"

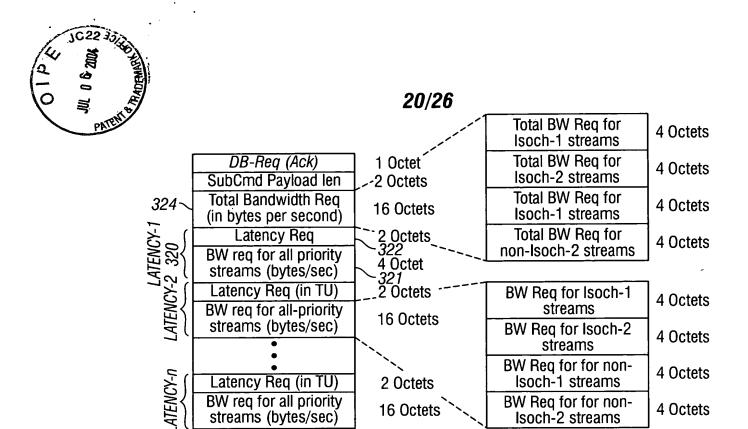
Strm Connection Accept subcommand	1 Octet
Subcmd Payload len	2 Octets
Stream Connection Type	1 Octet
Listen End Point ID (LEP-ID)	2 Octets
Requester End Point ID (REP-ID)	2 Octets
Acceptor End Point ID (AEP-ID)	2 Octets
Acceptor End Point Information (AEPI)	4 Octets
Source-Sink Params for Tx-Stream	4 Octets
Stream Qos Params for Tx-Stream	28 Octets
Source-Sink Params for Rx-Stream	4 Octets
Stream Qos Params for Rx-Stream	28 Octets





#### Stream Direction is '1' or '2'

	Stream Authorization Request/Grant/Reject	1 Octet	
	Subcmd Payload len	2 Octets	
	Stream Connection Type	1 Octet	DBM Command 1 Octet Cmd Payload len 2 Octets
	Stream Index	1 Octet	Subcommand structure n Octets
200	Listen End Point ID (LEP-ID)	2 Octets	FIG. 31
300 <	Rx Address	6 Octets	
	Source-Sink Params for the stream	4 Octets	
	Stream Qos Params for the Stream	28 Octets	
	FIG 30		



BW reg for all priority

streams (bytes/sec)

FIG. 32

16 Octets

BW Reg for for non-

Isoch-2 streams

4 Octets

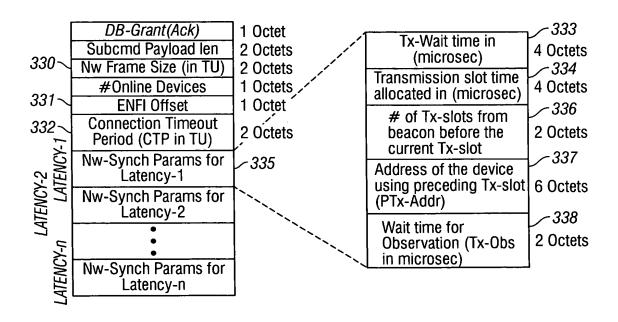


FIG. 33



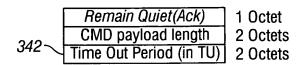


FIG. 34

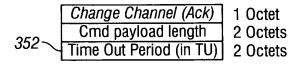


FIG. 35

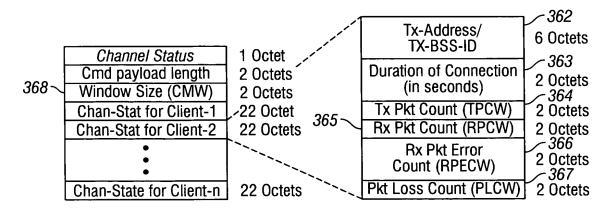


FIG. 36



PC Redundancy			PC Redundancy Negotiate subcmd	1 Octet
Command	1 Octet	200	Subcmd Payload len	2 Octets
Cmd Payload len	2 Octets	382~	Max PHY Tx range	1 Octet
Subcommand structure	n Octets	383~	Max External connections	1 Octet
FIG. 37		384~	Active Ext connections	1 Octet
		383	Max PHY Rate	] 1 Octet
Subcommand structure			Max External connections Active Ext connections	1 Octe 1 Octe

FIG. 38

Proxy Service Command	1 Octet		
Cmd Payload len	2 Octets	PPC Service Request	1 Ootot
Subcommand structure	n Octets	subcommand	1 Octet
		Subcmd Payload len	2 Octets
FIG. 39		Destination Addr-1	6 Octets
		Stream Requirements	n Octets
		Destination Addr-2	6 Octets
		Stream Requirements	n Octets
		•	
		•	

FIG. 40

6 Octets n Octets

Destination Addr-n Stream Requirements

411~	PM Provider Request subcommand Subcmd Payload len Device Addr-1 PLR-Measured	1 Octet 2 Octets 6 Octets 1 Octet			
412~	Device Addr-2	6 Octets		PPC service for subnet	1 Octet
	PLR-Measured	1 Octet		connection Subcmd Payload len	2 Octets
	FIG. 41		422 \	Embedded req-frame between the PCs	n Octets

FIG. 42





	PPC Permission Grant/Ack/Reject Subcmd Payload Len	1 Octet 2 Octets		PPC Service Break (Ack) subcommand	1 Octet
331	ENFI offset	6 Octets		Subcmd Payload len	2 Octets
	Addr of Device-1	6 Octets		CS-ID-1	1 Octets
	PPC-1	6 Octets	112-	CS-ID-2	1 Octets
	PPC-2	6 Octets	442~	Reason Code	1 Octet
	•		444~	Time out period (in TU)	2 Octets
	PPC-n	6 Octets		FIG. 44	
	Addr of Device-2	6 Octets		IIU. TT	

FIG. 43

пец/Ассері/пејесі/Аск	1 Octet 2 Octets	PPC-OSB tunneling Subcmd Payload len	1 Octet 2 Octets
Entire packet containing OSB-Req from another subnet	n Octets	Entire packet containing OSB-command between the two subnets	
FIG. 45	•	FIG. 46	

PPC-OSB Relieve Req (Ack) subcommand	1 Octet
	2 Octets
BSS SID (LS 4 bits) Reserved (MS 4 bits)	1 Octets
BSS ID	6 Octets

FIG. 47







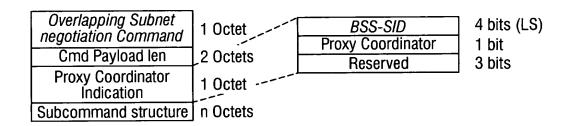


FIG. 48

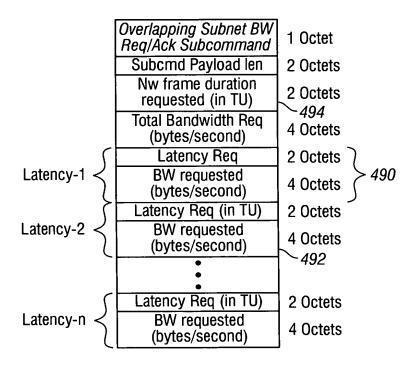


FIG. 49



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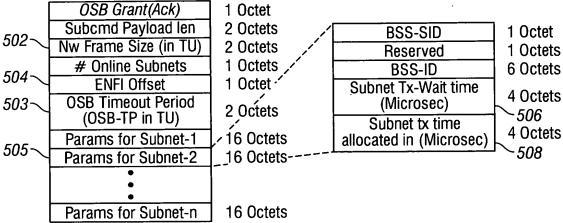
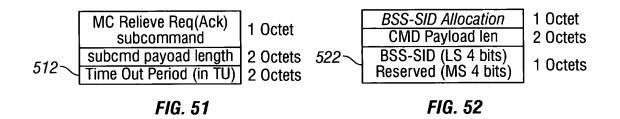


FIG. 50



ReTx Command	1 Octet
Cmd Payload len	2 Octets
Subcommand structure	n Octets

FIG. 53



ReTxReq Subcommand	1 Octet		•	
Subcmd Payload len	2 Octets			542
ReTx Info for Stream1	n Octets		Stream Index	1 Octet
ReTx Info for Stream2	n Octets	543~	Ack-Win Begin Seq#	2 Octets
•		544~	Ack-Win End Seq#	2 Octets
		`~~~	Pkt Rx Status	] m Octets
ReTx Info for Stream-n	n Octets	·		545

FIG. 54

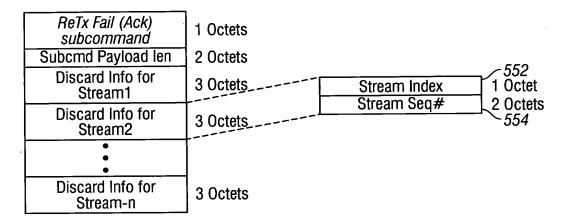


FIG. 55

ReTx Resync subcommand Subcmd Payload Len Resync Info for Stream1 Resync Info for Stream2	1 Octet 2 Octets 3 Octets 3 Octets	Stream Index Stream Seq#	552 1 Octet 2 Octets
Resync Info for Stream-n	3 Octets		

FIG. 56